II. AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Please replace the paragraph beginning on page 6 and which starts with "The mixer 124 result will be sent to a first band pass filter 114" with the following amended paragraph:

A1

The mixer 124 result will be sent to a first band pass filter 114 and a second band pass filter 116. The band pass of filter 114 would span from 105 MHz to 120 MHz in order to select the sum of the local oscillator frequency and ~~chosen clock~~ the chosen bandwidth control signal frequency (A = 5 MHz; B = 10 MHz; C = 20 MHz). For this exemplary embodiment, the frequency of the output to band pass filter 114 is A = 105 MHz; B = 110 MHz; and C = 120 MHz. This last output will then be divided by two in divider 112 thereby re-centering the frequency at A = 52.5 MHz; B = 55 MHz; and C = 60 MHz. The band pass of filter 116 would span from 80 to 95 MHz in order to select the difference of the local oscillator frequency and the chosen bandwidth control signal frequency. For the example embodiment, the frequency of the output to band pass filter 116 is A = 95 MHz; B = 90 MHz; and C = 80 MHz.

Please replace the paragraph beginning on page 8 and which starts with "The output band pass filter 122 is fed to mixer 130" with the following amended paragraph:

A2 cont

The output of band pass filter 122 is fed to mixer 130 for mixing with the output of divider 112. The resulting output 160 will be a signal at a third intermediate frequency (e.g., 200 MHz for A, B and C) containing the message information, but having a variable bandwidth (i.e., A = 200 MHz ± 5 MHz; B = 200 MHz ± 10 MHz; and C = 200 MHz ± 20 MHz). It will be appreciated that the transmitter 100 basically tracks the bandwidth of the message-bearing signal at input 150 and adjusts the bandwidth of the output

#2 cont'd

signal (signal released at 160) accordingly. The higher the bandwidth of the message bearing signal, the higher the bandwidth of the output signal will be.

Please replace the paragraph beginning on page 10 and which starts with "An embodiment of a reception device" with the following amended paragraph:

#3

An embodiment of a reception device is depicted in Figure 2. The variable bandwidth reception device 200 includes two band pass filters (220 and 222), three mixers (226, 228, and 230), and a local oscillator manager 210. The local oscillator manager 210 further comprises divider 212, two band pass filters (214 and 216), a mixer 224 and a local oscillator 218. The variable bandwidth ~~transmission~~ reception device 200 receives, as input 270, a bandwidth control signal and, as input 250, an Intermediate Frequency (IF) signal that was previously processed from an appropriate Radio Frequency (RF) level and received from the air medium. The output 260 to the variable bandwidth ~~transmission~~ reception device 200 is the baseband signal, which carries the message and can also be referred to as the information-bearing signal.

Please replace the paragraph beginning on page 11 and which starts with "The mixer 224 result will be sent to a first band pass filter 214" with the following amended paragraph:

#4 cont

The mixer 224 result will be sent to a first band pass filter 214 and a second band pass filter 216. The band pass of filter 214 would span from 105 MHz to 120 MHz in order to select the sum of the local oscillator frequency and ~~chosen clock~~ the chosen bandwidth control signal frequency (A = 5 MHz; B = 10 MHz; C = 20 MHz). For this exemplary embodiment, the frequency of the output to band pass filter 214 is A = 105 MHz; B = 110 MHz; and C = 120 MHz. This last output will then be divided by two in divider 212 thereby re-centering the frequency at A = 52.5 MHz; B = 55 MHz; and C = 60 MHz. The

A4 Cont'd

band pass of filter 216 would span from 80 to 95 MHz in order to select the difference of the local oscillator frequency and the chosen clock frequency. For the example embodiment, the frequency of the output to band pass filter 216 is A = 95 MHz; B = 90 MHz; and C = 80 MHz.

Please replace the paragraph beginning on page 12 and which starts with "The output band pass filter 222 is fed to mixer 230" with the following amended paragraph:

A5

The output <u>of</u> band pass filter 222 is fed to mixer 230 for mixing with the output of divider 212. The resulting output 260 will be a baseband signal containing the message to be sampled and further converted to a digital signal. As was the case of the transmitter 100, the receiver 200 adjusts the bandwidth of the output signal (signal at output 260) depending on the bandwidth of the signal at input 250. It should be noted that the signal released from output 260 does not have to be at the baseband and can be at a different frequency that requires further processing to produce a baseband signal.

Please replace the paragraph beginning on page 14 and which starts with "In any one of the above-described embodiments" with the following amended paragraph:

A6 Cont

In any one of the above-described embodiments, the bandwidth control signal input to the local oscillator manager 110, 210, 402 is equal to the symbol rate of the signals input at 150, 250. This however is not an essential requirement of the invention. It will become apparent to the reader that there are many practical applications where it will be advantageous to use a bandwidth control signal at a frequency other than the symbol rate of the signals input at 150, 250. Broadly stated, the bandwidth control signal [[is]] <u>can</u> merely be related to the bandwidth of the signals input at 150, 250. Thus, the bandwidth control signal frequency can be expressed as f(X) where "X" is the bandwidth

A16 Concl

of the signal input at 150, 250. The function f is any arbitrary function of the bandwidth of the signals input at 150, 250. Examples include: